SEQUENCE LISTING

<110> BOYLE, WILLIAM
HSU, HAILING

<120> RECEPTOR FROM TNF FAMILY

<130> A-570B

<140> NOT YET ASSIGNED
<141> 2001-02-12

<150> 60/181,800
<151> 2000-02-11

<160> 52

<170> PatentIn version 3.0

<210> 1
<211> 1173
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (143)..(997)

<400> 1
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acaaacacag ataacaggaa atgatccatt ccctgtggtc acttattcta aaggccccaa 120

ccttcaaagt tcaagtagtg at atg gat gac tcc aca gaa agg gag cag tca 172
Met Asp Asp Ser Thr Glu Arg Glu Gln Ser
1 5 10

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cgc ctt act tct tgc ctt aag aaa aga gaa gaa atg aaa ctg aag gag        220
Arg Leu Thr Ser Cys Leu Lys Lys Arg Glu Glu Met Lys Leu Lys Glu
                15                  20                  25

tgt gtt tcc atc ctc cca cgg aag gaa agc ccc tct gtc cga tcc tcc        268
Cys Val Ser Ile Leu Pro Arg Lys Glu Ser Pro Ser Val Arg Ser Ser
            30                  35                  40

aaa gac gga aag ctg ctg gct gca acc ttg ctg ctg gca ctg ctg tct        316
Lys Asp Gly Lys Leu Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser
        45                  50                  55

tgc tgc ctc acg gtg gtg tct ttc tac cag gtg gcc gcc ctg caa ggg        364
Cys Cys Leu Thr Val Val Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly
    60                  65                  70

gac ctg gcc agc ctc cgg gca gag ctg cag ggc cac cac gcg gag aag        412
Asp Leu Ala Ser Leu Arg Ala Glu Leu Gln Gly His His Ala Glu Lys
75                  80                  85                  90

ctg cca gca gga gca gga gcc ccc aag gcc ggc ctg gag gaa gct cca        460
Leu Pro Ala Gly Ala Gly Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro
                95                  100                 105

gct gtc acc gcg gga ctg aaa atc ttt gaa cca cca gct cca gga gaa        508
Ala Val Thr Ala Gly Leu Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu
            110                 115                 120

ggc aac tcc agt cag aac agc aga aat aag cgt gcc gtt cag ggt cca        556
Gly Asn Ser Ser Gln Asn Ser Arg Asn Lys Arg Ala Val Gln Gly Pro
        125                 130                 135

gaa gaa aca gtc act caa gac tgc ttg caa ctg att gca gac agt gaa        604
Glu Glu Thr Val Thr Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu
    140                 145                 150

aca cca act ata caa aaa gga tct tac aca ttt gtt cca tgg ctt ctc        652
Thr Pro Thr Ile Gln Lys Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu
155                 160                 165                 170

agc ttt aaa agg gga agt gcc cta gaa gaa aaa gag aat aaa ata ttg        700
Ser Phe Lys Arg Gly Ser Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu
                175                 180                 185

gtc aaa gaa act ggt tac ttt ttt ata tat ggt cag gtt tta tat act        748
Val Lys Glu Thr Gly Tyr Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr
            190                 195                 200

gat aag acc tac gcc atg gga cat cta att cag agg aag aag gtc cat        796
Asp Lys Thr Tyr Ala Met Gly His Leu Ile Gln Arg Lys Lys Val His
        205                 210                 215

gtc ttt ggg gat gaa ttg agt ctg gtg act ttg ttt cga tgt att caa        844
Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln
    220                 225                 230

aat atg cct gaa aca cta ccc aat aat tcc tgc tat tca gct ggc att        892
Asn Met Pro Glu Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile
235                 240                 245                 250

gca aaa ctg gaa gaa gga gat gaa ctc caa ctt gca ata cca aga gaa        940
Ala Lys Leu Glu Glu Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu
                255                 260                 265
```

```
aat gca caa ata tca ctg gat gga gat gtc aca ttt ttt ggt gca ttg      988
Asn Ala Gln Ile Ser Leu Asp Gly Asp Val Thr Phe Phe Gly Ala Leu
            270                 275                 280

aaa ctg ctg tgacctactt acaccatgtc tgtagctatt ttcctccctt           1037
Lys Leu Leu
        285

tctctgtacc tctaagaaga aagaatctaa ctgaaaatac caaaaaaaaa aaaaaaaaaa  1097

aaaaaaaagt agttaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  1157

aaaaactcgg aggggg                                                  1173
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<210> 2

<211> 285

<212> PRT

<213> Homo sapiens

<400> 2

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Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu
1               5                   10                  15

Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro
            20                  25                  30

Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu
        35                  40                  45

Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val
    50                  55                  60

Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg
65                  70                  75                  80

Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly
                85                  90                  95

Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu
            100                 105                 110

Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn
        115                 120                 125

Ser Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln
    130                 135                 140
```

```
Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys
145                 150                 155                 160

Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser
                165                 170                 175

Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr
            180                 185                 190

Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met
        195                 200                 205

Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu
    210                 215                 220

Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu
225                 230                 235                 240

Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu Gly
                245                 250                 255

Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu
            260                 265                 270

Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu
        275                 280                 285
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<210> 3

<211> 1139

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (52)..(978)

<400> 3

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                                                          Met Asp
                                                          1

gag tct gca aag acc ctg cca cca ccg tgc ctc tgt ttt tgc tcc gag      105
Glu Ser Ala Lys Thr Leu Pro Pro Pro Cys Leu Cys Phe Cys Ser Glu
        5                   10                  15

aaa gga gaa gat atg aaa gtg gga tat gat ccc atc act ccg cag aag      153
```

```
Lys Gly Glu Asp Met Lys Val Gly Tyr Asp Pro Ile Thr Pro Gln Lys
    20                  25                  30

gag gag ggt gcc tgg ttt ggg atc tgc agg gat gga agg ctg ctg gct      201
Glu Glu Gly Ala Trp Phe Gly Ile Cys Arg Asp Gly Arg Leu Leu Ala
35                  40                  45                  50

gct acc ctc ctg ctg gcc ctg ttg tcc agc agt ttc aca gcg atg tcc      249
Ala Thr Leu Leu Leu Ala Leu Leu Ser Ser Ser Phe Thr Ala Met Ser
                55                  60                  65

ttg tac cag ttg gct gcc ttg caa gca gac ctg atg aac ctg cgc atg      297
Leu Tyr Gln Leu Ala Ala Leu Gln Ala Asp Leu Met Asn Leu Arg Met
            70                  75                  80

gag ctg cag agc tac cga ggt tca gca aca cca gcc gcc gcg ggt gct      345
Glu Leu Gln Ser Tyr Arg Gly Ser Ala Thr Pro Ala Ala Ala Gly Ala
        85                  90                  95

cca gag ttg acc gct gga gtc aaa ctc ctg aca ccg gca gct cct cga      393
Pro Glu Leu Thr Ala Gly Val Lys Leu Leu Thr Pro Ala Ala Pro Arg
    100                 105                 110

ccc cac aac tcc agc cgc ggc cac agg aac aga cgc gct ttc cag gga      441
Pro His Asn Ser Ser Arg Gly His Arg Asn Arg Arg Ala Phe Gln Gly
115                 120                 125                 130

cca gag gaa aca gaa caa gat gta gac ctc tca gct cct cct gca cca      489
Pro Glu Glu Thr Glu Gln Asp Val Asp Leu Ser Ala Pro Pro Ala Pro
                135                 140                 145

tgc ctg cct gga tgc cgc cat tct caa cat gat gat aat gga atg aac      537
Cys Leu Pro Gly Cys Arg His Ser Gln His Asp Asp Asn Gly Met Asn
            150                 155                 160

ctc aga aac atc att caa gac tgt ctg cag ctg att gca gac agc gac      585
Leu Arg Asn Ile Ile Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Asp
        165                 170                 175

acg ccg act ata cga aaa gga act tac aca ttt gtt cca tgg ctt ctc      633
Thr Pro Thr Ile Arg Lys Gly Thr Tyr Thr Phe Val Pro Trp Leu Leu
    180                 185                 190

agc ttt aaa aga gga aat gcc ttg gag gag aaa gag aac aaa ata gtg      681
Ser Phe Lys Arg Gly Asn Ala Leu Glu Glu Lys Glu Asn Lys Ile Val
195                 200                 205                 210

gtg agg caa aca ggc tat ttc ttc atc tac agc cag gtt cta tac acg      729
Val Arg Gln Thr Gly Tyr Phe Phe Ile Tyr Ser Gln Val Leu Tyr Thr
                215                 220                 225

gac ccc atc ttt gct atg ggt cat gtc atc cag agg aag aaa gta cac      777
Asp Pro Ile Phe Ala Met Gly His Val Ile Gln Arg Lys Lys Val His
            230                 235                 240

gtc ttt ggg gac gag ctg agc ctg gtg acc ctg ttc cga tgt att cag      825
Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln
        245                 250                 255

aat atg ccc aaa aca ctg ccc aac aat tcc tgc tac ttg gct ggc atc      873
Asn Met Pro Lys Thr Leu Pro Asn Asn Ser Cys Tyr Leu Ala Gly Ile
    260                 265                 270

gcg agg ctg gaa gaa gga gat gag att cag ctt gca att cct cgg gag      921
```

```
Ala Arg Leu Glu Glu Gly Asp Glu Ile Gln Leu Ala Ile Pro Arg Glu
275                 280                 285                 290

aat gca cag att tca cgc aac gga gac gac acc ttc ttt ggt gcc cta      969
Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr Phe Phe Gly Ala Leu
                295                 300                 305

aaa ctg ctg taactcactt gctggagtgc gtgatcccct tccctcgtct             1018
Lys Leu Leu

tctctgtacc tccgagggag aaacagacga ctggaaaaat aaaagatggg gaaagccgtc   1078

agcgaaagtt ttctcgtgac ccgttgaatc tgatccaaac caggaaatat aacagacagc   1138

c                                                                   1139
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<210> 4

<211> 309

<212> PRT

<213> Mus musculus

<400> 4

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Met Asp Glu Ser Ala Lys Thr Leu Pro Pro Pro Cys Leu Cys Phe Cys
1               5                   10                  15

Ser Glu Lys Gly Glu Asp Met Lys Val Gly Tyr Asp Pro Ile Thr Pro
            20                  25                  30

Gln Lys Glu Glu Gly Ala Trp Phe Gly Ile Cys Arg Asp Gly Arg Leu
        35                  40                  45

Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Ser Ser Phe Thr Ala
    50                  55                  60

Met Ser Leu Tyr Gln Leu Ala Ala Leu Gln Ala Asp Leu Met Asn Leu
65                  70                  75                  80

Arg Met Glu Leu Gln Ser Tyr Arg Gly Ser Ala Thr Pro Ala Ala Ala
                85                  90                  95

Gly Ala Pro Glu Leu Thr Ala Gly Val Lys Leu Leu Thr Pro Ala Ala
            100                 105                 110

Pro Arg Pro His Asn Ser Ser Arg Gly His Arg Asn Arg Arg Ala Phe
        115                 120                 125

Gln Gly Pro Glu Glu Thr Glu Gln Asp Val Asp Leu Ser Ala Pro Pro
    130                 135                 140
```

```
Ala Pro Cys Leu Pro Gly Cys Arg His Ser Gln His Asp Asp Asn Gly
145                 150                 155                 160

Met Asn Leu Arg Asn Ile Ile Gln Asp Cys Leu Gln Leu Ile Ala Asp
                165                 170                 175

Ser Asp Thr Pro Thr Ile Arg Lys Gly Thr Tyr Thr Phe Val Pro Trp
            180                 185                 190

Leu Leu Ser Phe Lys Arg Gly Asn Ala Leu Glu Glu Lys Glu Asn Lys
        195                 200                 205

Ile Val Val Arg Gln Thr Gly Tyr Phe Phe Ile Tyr Ser Gln Val Leu
    210                 215                 220

Tyr Thr Asp Pro Ile Phe Ala Met Gly His Val Ile Gln Arg Lys Lys
225                 230                 235                 240

Val His Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys
                245                 250                 255

Ile Gln Asn Met Pro Lys Thr Leu Pro Asn Asn Ser Cys Tyr Leu Ala
            260                 265                 270

Gly Ile Ala Arg Leu Glu Glu Gly Asp Glu Ile Gln Leu Ala Ile Pro
        275                 280                 285

Arg Glu Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr Phe Phe Gly
    290                 295                 300

Ala Leu Lys Leu Leu
305

<210>  5

<211>  278

<212>  PRT

<213>  Homo sapiens


<220>

<221>  misc_feature

<223>  X = one or more naturally occurring amino acid residues.
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<400> 5

Met Asp Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa Cys
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Xaa Xaa Lys Xaa Glu Xaa Met Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Gly Xaa Leu
35 40 45

Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Xaa Xaa Xaa Thr Xaa
50 55 60

Xaa Ser Xaa Tyr Gln Xaa Ala Ala Leu Gln Xaa Asp Leu Xaa Xaa Leu
65 70 75 80

Arg Xaa Glu Leu Gln Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Ala Xaa Ala
85 90 95

Gly Ala Pro Xaa Xaa Thr Ala Gly Xaa Lys Xaa Xaa Xaa Pro Xaa Ala
100 105 110

Pro Xaa Xaa Xaa Asn Ser Ser Xaa Xaa Xaa Arg Asn Xaa Arg Ala Xaa
115 120 125

Gln Gly Pro Glu Glu Thr Xaa Xaa Gln Asp Cys Leu Gln Leu Ile Ala
130 135 140

Asp Ser Xaa Thr Pro Thr Ile Xaa Lys Gly Xaa Tyr Thr Phe Val Pro
145 150 155 160

Trp Leu Leu Ser Phe Lys Arg Gly Ser Ala Leu Glu Glu Lys Glu Asn
165 170 175

Lys Ile Xaa Val Xaa Xaa Thr Gly Tyr Phe Phe Ile Tyr Xaa Gln Val
180 185 190

Leu Tyr Thr Asp Xaa Xaa Xaa Ala Met Gly His Xaa Ile Gln Arg Lys
195 200 205

Lys Val His Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg
210 215 220

Cys Ile Gln Asn Met Pro Xaa Thr Leu Pro Asn Asn Ser Cys Tyr Ser
225 230 235 240

Ala Gly Ile Ala Xaa Leu Glu Glu Gly Asp Glu Xaa Gln Leu Ala Ile
245 250 255

Pro Arg Glu Asn Ala Gln Ile Ser Xaa Xaa Gly Asp Xaa Thr Phe Phe
260 265 270

Gly Ala Leu Lys Leu Leu
275

<210> 6

<211> 102

<212> PRT

<213> Consensus

<220>

<221> misc_feature

<223> X = one or more any naturally occurring amino acid residues.

<400> 6

Xaa Pro Ala Ala His Leu Thr Xaa Pro Xaa Leu Xaa Trp Ala Xaa Leu
1 5 10 15

Ser Xaa Gly Val Xaa Leu Xaa Asn Xaa Leu Val Val Xaa Gly Leu Tyr
20 25 30

Phe Ile Tyr Ser Gln Val Xaa Phe Xaa Gly Gln Xaa Cys Pro Xaa Val
35 40 45

Xaa Leu Xaa His Xaa Val Xaa Val Xaa Tyr Pro Xaa Leu Leu Ser Xaa
50 55 60

Thr Xaa Cys Xaa Trp Xaa Ser Xaa Tyr Leu Gly Gly Val Phe Xaa Leu
65 70 75 80

Xaa Gly Asp Xaa Leu Tyr Val Asn Val Xaa Ser Xaa Phe Xaa Thr Phe
85 90 95

Phe Gly Leu Phe Lys Leu
100

<210> 7

<211> 143

<212> PRT

<213> Homo sapiens

<400> 7

Glu Lys Lys Glu Leu Arg Lys Val Ala His Leu Thr Gly Lys Ser Asn
1 5 10 15

Ser Arg Ser Met Pro Leu Glu Trp Glu Asp Thr Tyr Gly Ile Val Leu
20 25 30

Leu Ser Gly Val Lys Tyr Lys Lys Gly Gly Leu Val Leu Asn Glu Thr
35 40 45

Gly Leu Tyr Phe Val Tyr Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys
50 55 60

Asn Asn Leu Pro Leu Ser His Lys Val Tyr Met Arg Asn Ser Lys Tyr
65 70 75 80

Pro Gln Asp Leu Val Met Met Glu Gly Lys Met Met Ser Tyr Cys Thr
85 90 95

Thr Gly Gln Met Trp Ala Arg Ser Ser Tyr Leu Gly Ala Val Phe Asn

```
            100                 105                 110

Leu Thr Ser Ala Asp His Leu Tyr Val Asn Val Ser Glu Leu Ser Leu
        115                 120                 125

Val Asn Phe Glu Glu Ser Gln Thr Phe Phe Gly Leu Tyr Lys Leu
    130                 135                 140
```

<210> 8

<211> 143

<212> PRT

<213> Mus musculus

<400> 8

```
Glu Lys Lys Glu Pro Arg Ser Val Ala His Leu Thr Gly Asn Pro His
1               5                   10                  15

Ser Arg Ser Ile Pro Leu Glu Trp Glu Asp Thr Tyr Gly Thr Ala Leu
            20                  25                  30

Ile Ser Gly Val Lys Tyr Lys Lys Gly Gly Leu Val Ile Asn Glu Thr
        35                  40                  45

Gly Leu Tyr Phe Val Tyr Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys
    50                  55                  60

Asn Asn Gln Pro Ile Asn His Lys Val Tyr Met Arg Asn Ser Lys Tyr
65                  70                  75                  80

Pro Glu Asp Leu Val Leu Met Glu Glu Lys Arg Leu Asn Tyr Cys Thr
                85                  90                  95

Thr Gly Gln Ile Trp Ala His Ser Ser Tyr Leu Gly Ala Val Phe Asn
            100                 105                 110

Leu Thr Ser Ala Asp His Leu Val Tyr Asn Ile Ser Gln Leu Ser Leu
        115                 120                 125

Ile Asn Phe Glu Glu Ser Lys Thr Phe Phe Gly Leu Tyr Lys Leu
    130                 135                 140
```

<210> 9

<211> 143

<212> PRT

<213> Rattus rattus

<400> 9

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Glu Thr Lys Lys Pro Arg Ser Val Ala His Leu Thr Gly Asn Pro Arg
1               5                   10                  15

Ser Arg Ser Ile Pro Leu Glu Trp Glu Asp Thr Tyr Gly Thr Ala Leu
            20                  25                  30
```

```
Ile Ser Gly Val Lys Tyr Lys Lys Gly Gly Leu Val Ile Asn Glu Ala
        35                  40                  45

Gly Leu Tyr Phe Val Tyr Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys
    50                  55                  60

Asn Ser Gln Pro Leu Ser His Lys Val Tyr Met Arg Asn Phe Lys Tyr
65                  70                  75                  80

Pro Gly Asp Leu Val Leu Met Glu Glu Lys Lys Leu Asn Tyr Cys Thr
                85                  90                  95

Thr Gly Gln Ile Trp Ala His Ser Ser Tyr Leu Gly Ala Val Phe Asn
            100                 105                 110

Leu Thr Val Ala Asp His Leu Tyr Val Asn Ile Ser Gln Leu Ser Leu
        115                 120                 125

Ile Asn Phe Glu Glu Ser Lys Thr Phe Phe Gly Leu Tyr Lys Leu
    130                 135                 140
```

<210> 10

<211> 146

<212> PRT

<213> Homo sapiens

<400> 10

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Gly Asp Gln Asn Pro Gln Ile Ala Ala Arg Val Ile Ser Glu Ala Ser
1               5                   10                  15

Ser Lys Thr Thr Ser Val Leu Gln Trp Ala Glu Lys Gly Tyr Tyr Thr
            20                  25                  30

Met Ser Asn Asn Leu Val Thr Leu Glu Asn Gly Lys Gln Leu Thr Val
        35                  40                  45

Lys Arg Gln Gly Leu Tyr Tyr Ile Tyr Ala Gln Val Thr Phe Cys Ser
    50                  55                  60

Asn Arg Glu Ala Ser Ser Gln Ala Pro Phe Ile Ala Ser Leu Cys Leu
65                  70                  75                  80

Lys Ser Pro Gly Arg Phe Glu Arg Ile Leu Leu Arg Ala Ala Asn Thr
                85                  90                  95

His Ser Ser Ala Lys Pro Cys Gly Gln Gln Ser Ile His Leu Gly Gly
            100                 105                 110

Val Phe Glu Leu Gln Pro Gly Ala Ser Val Phe Val Asn Val Thr Asp
        115                 120                 125

Pro Ser Gln Val Ser His Gly Thr Gly Phe Thr Ser Phe Gly Leu Leu
    130                 135                 140

Lys Leu
145
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<210> 11

<211> 146

<212> PRT

<213> Mus musculus

<400> 11

```
Gly Asp Glu Asp Pro Gln Ile Ala Ala His Val Val Ser Glu Ala Asn
1               5                  10                  15

Ser Asn Ala Ala Ser Val Leu Gln Trp Ala Lys Lys Gly Tyr Tyr Thr
            20                  25                  30

Met Lys Ser Asn Leu Val Met Leu Glu Asn Gly Lys Gln Leu Thr Val
        35                  40                  45

Lys Arg Glu Gly Leu Tyr Tyr Val Tyr Thr Gln Val Thr Phe Gln Ser
    50                  55                  60

Asn Arg Glu Pro Ser Ser Gln Arg Pro Phe Ile Val Gly Leu Trp Leu
65                  70                  75                  80

Lys Pro Ser Ile Gly Ser Glu Arg Ile Leu Leu Lys Ala Ala Asn Thr
                85                  90                  95

His Ser Ser Ser Gln Leu Cys Glu Gln Gln Ser Val His Leu Gly Gly
            100                 105                 110

Val Phe Glu Leu Gln Ala Gly Ala Ser Val Phe Val Asn Val Thr Glu
        115                 120                 125

Ala Ser Gln Val Ile His Arg Val Gly Phe Ser Ser Phe Gly Leu Leu
    130                 135                 140

Lys Leu
145
```

<210> 12

<211> 144

<212> PRT

<213> Homo sapiens

<400> 12

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Val Thr Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr
1               5                  10                  15

Ile Gln Lys Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys
            20                  25                  30

Arg Gly Ser Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu
        35                  40                  45

Thr Gly Tyr Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr
```

```
    50                  55                  60

Tyr Ala Met Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly
65                  70                  75                  80

Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro
                85                  90                  95

Glu Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu
            100                 105                 110

Glu Glu Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln
        115                 120                 125

Ile Ser Leu Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu
    130                 135                 140
```

<210> 13

<211> 147

<212> PRT

<213> Mus musculus

<400> 13

```
Leu Arg Asn Ile Ile Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Asp
1               5                   10                  15

Thr Pro Thr Ile Arg Lys Gly Thr Tyr Thr Phe Val Pro Trp Leu Leu
            20                  25                  30

Ser Phe Lys Arg Gly Asn Ala Leu Glu Glu Lys Glu Asn Lys Ile Val
        35                  40                  45

Val Arg Gln Thr Gly Tyr Phe Phe Ile Tyr Ser Gln Val Leu Tyr Thr
    50                  55                  60

Asp Pro Ile Phe Ala Met Gly His Val Ile Gln Arg Lys Lys Val His
65                  70                  75                  80

Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln
                85                  90                  95

Asn Met Pro Lys Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile
            100                 105                 110

Ala Arg Leu Glu Glu Gly Asp Glu Ile Gln Leu Ala Ile Pro Arg Glu
        115                 120                 125

Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr Phe Phe Gly Ala Leu
    130                 135                 140

Lys Leu Leu
145
```

<210> 14

<211> 160

<212> PRT

<213> Mus musculus

<400> 14

```
Gly Lys Pro Glu Ala Gln Pro Phe Ala His Leu Thr Ile Asn Ala Ala
1               5                  10                  15

Ser Ile Pro Ser Gly Ser His Lys Val Thr Leu Ser Ser Trp Tyr His
            20                  25                  30

Asp Arg Gly Trp Ala Lys Ile Ser Asn Met Thr Leu Ser Asn Gly Lys
        35                  40                  45

Leu Arg Val Asn Gln Asp Gly Phe Tyr Tyr Leu Tyr Ala Asn Ile Cys
    50                  55                  60

Phe Arg His His Glu Thr Ser Gly Ser Val Pro Thr Asp Tyr Leu Gln
65                  70                  75                  80

Leu Met Val Tyr Val Val Lys Thr Ser Ile Lys Ile Pro Ser Ser His
                85                  90                  95

Asn Leu Met Lys Gly Gly Ser Thr Lys Asn Trp Ser Gly Asn Ser Glu
            100                 105                 110

Phe His Phe Tyr Ser Ile Asn Val Gly Gly Phe Phe Lys Leu Arg Ala
        115                 120                 125

Gly Glu Glu Ile Ser Ile Gln Val Ser Asn Pro Ser Leu Leu Asp Pro
    130                 135                 140

Asp Gln Asp Ala Thr Tyr Phe Gly Ala Phe Lys Val Gln Asp Ile Asp
145                 150                 155                 160
```

<210> 15

<211> 160

<212> PRT

<213> Homo sapiens

<400> 15

```
Ser Lys Leu Glu Ala Gln Pro Phe Ala His Leu Thr Ile Asn Ala Thr
1               5                  10                  15

Asp Ile Pro Ser Gly Ser His Lys Val Ser Leu Ser Ser Trp Tyr His
            20                  25                  30

Asp Arg Gly Trp Ala Lys Ile Ser Asn Met Thr Phe Ser Asn Gly Lys
        35                  40                  45

Leu Ile Val Asn Gln Asp Gly Phe Tyr Tyr Leu Tyr Ala Asn Ile Cys
    50                  55                  60

Phe Arg His His Glu Thr Ser Gly Asp Leu Ala Thr Glu Tyr Leu Gln
65                  70                  75                  80
```

Leu Met Val Tyr Val Thr Lys Thr Ser Ile Lys Ile Pro Ser Ser His
85 90 95

Thr Leu Met Lys Gly Gly Ser Thr Lys Tyr Trp Ser Gly Asn Ser Glu
100 105 110

Phe His Phe Tyr Ser Ile Asn Val Gly Gly Phe Phe Lys Leu Arg Ser
115 120 125

Gly Glu Glu Ile Ser Ile Glu Val Ser Asn Pro Ser Leu Leu Asp Pro
130 135 140

Asp Gln Asp Ala Thr Tyr Phe Gly Ala Phe Lys Val Arg Asp Ile Asp
145 150 155 160

<210> 16

<211> 166

<212> PRT

<213> Homo sapiens

<400> 16

Glu Arg Gly Pro Gln Arg Val Ala Ala His Ile Thr Gly Thr Arg Gly
1 5 10 15

Arg Ser Asn Thr Leu Ser Ser Pro Asn Ser Lys Asn Glu Lys Ala Leu
20 25 30

Gly Arg Lys Ile Asn Ser Trp Glu Ser Ser Arg Ser Gly His Ser Phe
35 40 45

Leu Ser Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile His Glu Lys
50 55 60

Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln Glu Glu
65 70 75 80

Ile Lys Glu Asn Thr Lys Asn Asp Lys Gln Met Val Gln Tyr Ile Tyr
85 90 95

Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys Ser Ala Arg
100 105 110

Asn Ser Cys Trp Ser Lys Asp Ala Glu Tyr Gly Leu Tyr Ser Ile Tyr
115 120 125

Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile Phe Val Ser
130 135 140

Val Thr Asn Glu His Leu Ile Asp Met Asp His Glu Ala Ser Phe Phe
145 150 155 160

Gly Ala Phe Leu Val Gly
165

<210> 17

<211> 172

<212> PRT

<213> Mus musculus

<400> 17

```
Gly Gly Arg Pro Gln Lys Val Ala Ala His Ile Thr Gly Ile Thr Arg
1               5                  10                  15

Arg Ser Asn Ser Ala Leu Ile Pro Ile Ser Lys Asp Gly Lys Thr Leu
            20                  25                  30

Gly Gln Lys Ile Glu Ser Trp Glu Ser Ser Arg Lys Gly His Ser Phe
        35                  40                  45

Leu Asn His Val Leu Phe Arg Asn Gly Glu Leu Val Ile Glu Gln Glu
    50                  55                  60

Gly Leu Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln Glu Ala
65                  70                  75                  80

Glu Asp Ala Ser Lys Met Val Ser Lys Asp Lys Val Arg Thr Lys Gln
                85                  90                  95

Leu Val Gln Tyr Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Val
            100                 105                 110

Leu Met Lys Ser Ala Arg Asn Ser Cys Trp Ser Arg Asp Ala Glu Tyr
        115                 120                 125

Gly Leu Tyr Ser Ile Tyr Gln Gly Gly Leu Phe Glu Leu Lys Lys Asn
    130                 135                 140

Asp Arg Ile Phe Val Ser Val Thr Asn Glu His Leu Met Asp Leu Asp
145                 150                 155                 160

Gln Glu Ala Ser Phe Phe Gly Ala Phe Leu Ile Asn
                165                 170
```

<210> 18

<211> 143

<212> PRT

<213> Homo sapiens

<400> 18

```
Arg Ala Pro Phe Lys Lys Ser Trp Ala Tyr Leu Gln Val Ala Lys His
1               5                  10                  15

Leu Asn Lys Thr Lys Leu Ser Trp Asn Lys Asp Gly Ile Leu His Gly
            20                  25                  30

Val Arg Tyr Gln Asp Gly Asn Leu Val Ile Gln Phe Pro Gly Leu Tyr
        35                  40                  45
```

Phe Ile Ile Cys Gln Leu Gln Phe Leu Val Gln Cys Pro Asn Asn Ser
50 55 60

Val Asp Leu Lys Leu Glu Leu Leu Ile Asn Lys His Ile Lys Lys Gln
65 70 75 80

Ala Leu Val Thr Val Cys Glu Ser Gly Met Gln Thr Lys His Val Tyr
85 90 95

Gln Asn Leu Ser Gln Phe Leu Leu Asp Tyr Leu Gln Val Asn Thr Thr
100 105 110

Ile Ser Val Asn Val Asp Thr Phe Gln Tyr Ile Asp Thr Ser Thr Phe
115 120 125

Pro Leu Glu Asn Val Leu Ser Ile Phe Leu Tyr Ser Asn Ser Asp
130 135 140

<210> 19

<211> 143

<212> PRT

<213> Mus musculus

<400> 19

Ser Thr Pro Ser Lys Lys Ser Trp Ala Tyr Leu Gln Val Ser Lys His
1 5 10 15

Leu Asn Asn Thr Lys Leu Ser Trp Asn Glu Asp Gly Thr Ile His Gly
20 25 30

Leu Ile Tyr Gln Asp Gly Asn Leu Ile Val Gln Phe Pro Gly Leu Tyr
35 40 45

Phe Ile Val Cys Gln Leu Gln Phe Leu Val Gln Cys Ser Asn His Ser
50 55 60

Val Asp Leu Thr Leu Gln Leu Leu Ile Asn Ser Lys Ile Lys Lys Gln
65 70 75 80

Thr Leu Val Thr Val Cys Glu Ser Gly Val Gln Ser Lys Asn Ile Tyr
85 90 95

Gln Asn Leu Ser Gln Phe Leu Leu His Tyr Leu Gln Val Asn Ser Thr
100 105 110

Ile Ser Val Arg Val Asp Asn Phe Gln Tyr Val Asp Thr Asn Thr Phe
115 120 125

Pro Leu Asp Asn Val Leu Ser Val Phe Leu Tyr Ser Ser Ser Asp
130 135 140

<210> 20

<211> 163

<212> PRT

<213> Homo sapiens

<400> 20

```
Asp Leu Ser Pro Gly Leu Pro Ala Ala His Leu Ile Gly Ala Pro Leu
1               5                  10                  15

Lys Gly Gln Gly Leu Gly Trp Glu Thr Thr Lys Glu Gln Ala Phe Leu
            20                  25                  30

Thr Ser Gly Thr Gln Phe Ser Asp Ala Glu Gly Leu Ala Leu Pro Gln
        35                  40                  45

Asp Gly Leu Tyr Tyr Leu Tyr Cys Leu Val Gly Tyr Arg Gly Arg Ala
    50                  55                  60

Pro Pro Gly Gly Gly Asp Pro Gln Gly Arg Ser Val Thr Leu Arg Ser
65                  70                  75                  80

Ser Leu Tyr Arg Ala Gly Gly Ala Tyr Gly Pro Gly Thr Pro Glu Leu
                85                  90                  95

Leu Leu Glu Gly Ala Glu Thr Val Thr Pro Val Leu Asp Pro Ala Arg
            100                 105                 110

Arg Gln Gly Tyr Gly Pro Leu Trp Tyr Thr Ser Val Gly Phe Gly Gly
        115                 120                 125

Leu Val Gln Leu Arg Arg Gly Glu Arg Val Tyr Val Asn Ile Ser His
    130                 135                 140

Pro Asp Met Val Asp Phe Ala Arg Gly Lys Thr Phe Phe Gly Ala Val
145                 150                 155                 160

Met Val Gly
```

<210> 21

<211> 159

<212> PRT

<213> Mus musculus

<400> 21

```
Asp Leu Asn Pro Glu Leu Pro Ala Ala His Leu Ile Gly Ala Trp Met
1               5                  10                  15

Ser Gly Gln Gly Leu Ser Trp Glu Ala Ser Gln Glu Glu Ala Phe Leu
            20                  25                  30

Arg Ser Gly Ala Gln Phe Ser Pro Thr His Gly Leu Ala Leu Pro Gln
        35                  40                  45

Asp Gly Val Tyr Tyr Leu Tyr Cys His Val Gly Tyr Arg Gly Arg Thr
    50                  55                  60

Pro Pro Ala Gly Arg Ser Arg Ala Arg Ser Leu Thr Leu Arg Ser Ala
```

65 70 75 80

Leu Tyr Arg Ala Gly Gly Ala Tyr Gly Arg Gly Ser Pro Glu Leu Leu
85 90 95

Leu Glu Gly Ala Glu Thr Val Thr Pro Val Val Asp Pro Ile Gly Tyr
100 105 110

Gly Ser Leu Trp Tyr Thr Ser Val Gly Phe Gly Gly Leu Ala Gln Leu
115 120 125

Arg Ser Gly Glu Arg Val Tyr Val Asn Ile Ser His Pro Asp Met Val
130 135 140

Asp Tyr Arg Arg Gly Lys Thr Phe Phe Gly Ala Val Met Val Gly
145 150 155

<210> 22

<211> 149

<212> PRT

<213> Homo sapiens

<400> 22

Ala His Ser Thr Leu Lys Pro Ala Ala His Leu Ile Gly Asp Pro Ser
1 5 10 15

Lys Gln Asn Ser Leu Leu Trp Arg Ala Asn Thr Asp Arg Ala Phe Leu
20 25 30

Gln Asp Gly Phe Ser Leu Ser Asn Asn Ser Leu Leu Val Pro Thr Ser
35 40 45

Gly Ile Tyr Phe Val Tyr Ser Gln Val Val Phe Ser Gly Lys Ala Tyr
50 55 60

Ser Pro Lys Ala Thr Ser Ser Pro Leu Tyr Leu Ala His Glu Val Gln
65 70 75 80

Leu Phe Ser Ser Gln Tyr Pro Phe His Val Pro Leu Leu Ser Ser Gln
85 90 95

Lys Met Val Tyr Pro Gly Leu Gln Glu Pro Trp Leu His Ser Met Tyr
100 105 110

His Gly Ala Ala Phe Gln Leu Thr Gln Gly Asp Gln Leu Ser Thr His
115 120 125

Thr Asp Gly Ile Pro His Leu Val Leu Ser Pro Ser Thr Val Phe Phe
130 135 140

Gly Ala Phe Ala Leu
145

<210> 23

<211> 149

<212> PRT

<213> Mus musculus

<400> 23

```
Thr His Gly Ile Leu Lys Pro Ala Ala His Leu Val Gly Tyr Pro Ser
1               5                  10                  15

Lys Gln Asn Ser Leu Leu Trp Arg Ala Ser Thr Asp Arg Ala Phe Leu
            20                  25                  30

Arg His Gly Phe Ser Leu Ser Asn Asn Ser Leu Leu Ile Pro Thr Ser
        35                  40                  45

Gly Leu Tyr Phe Val Tyr Ser Gln Val Val Phe Ser Gly Glu Ser Cys
    50                  55                  60

Ser Pro Arg Ala Ile Pro Thr Pro Ile Tyr Leu Ala His Glu Val Gln
65                  70                  75                  80

Leu Phe Ser Ser Gln Tyr Pro Phe His Val Pro Leu Leu Ser Ala Gln
                85                  90                  95

Lys Ser Val Tyr Pro Gly Leu Gln Gly Pro Trp Val Arg Ser Met Tyr
            100                 105                 110

Gln Gly Ala Val Phe Leu Leu Ser Lys Gly Asp Gln Leu Ser Thr His
        115                 120                 125

Thr Asp Gly Ile Ser His Leu His Phe Ser Pro Ser Ser Val Phe Phe
    130                 135                 140

Gly Ala Phe Ala Leu
145
```

<210> 24

<211> 152

<212> PRT

<213> Homo sapiens

<400> 24

```
Arg Thr Pro Ser Asp Lys Pro Val Ala His Val Val Ala Asn Pro Gln
1               5                  10                  15

Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg Ala Asn Ala Leu Leu
            20                  25                  30

Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu Val Val Pro Ser Glu
        35                  40                  45

Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly Cys
    50                  55                  60

Pro Ser Thr His Val Leu Leu Thr His Thr Ile Ser Arg Ile Ala Val
65                  70                  75                  80
```

Ser Tyr Gln Thr Lys Val Asn Leu Leu Ser Ala Ile Lys Ser Pro Cys
85 90 95

Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Lys Pro Trp Tyr Glu Pro
100 105 110

Ile Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Arg Leu Ser
115 120 125

Ala Glu Ile Asn Arg Pro Asp Tyr Leu Asp Phe Ala Glu Ser Gly Gln
130 135 140

Val Tyr Phe Gly Ile Ile Ala Leu
145 150

<210> 25

<211> 29

<212> PRT

<213> Artificial

<220>

<223> Description of Artificial Sequence:AGP-3 RELATED PROTEIN

<220>

<221> misc_feature

<223> Positions 11, 16, 19, X = any naturally occurring amino acid residue

<400> 25

Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Xaa Thr Pro Thr Ile Xaa
1 5 10 15

Lys Gly Xaa Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe
20 25

<210> 26

<211> 25

<212> PRT

<213> Artificial

<220>

<223> Description of Artificial Sequence:CONSENSUS

<220>

<221> misc_feature

<223> Position 5, X = any naturally occurring amino acid residue.

<400> 26

Ala Met Gly His Xaa Ile Gln Arg Lys Lys Val His Val Phe Gly Asp
1 5 10 15

Glu Leu Ser Leu Val Thr Leu Phe Arg
20 25

<210> 27

<211> 142

<212> PRT

<213> Artificial

<220>

<223> Description of Artificial Sequence:CONSENSUS

<220>

<221> misc_feature

<223> Positions 43, 45, 46, 54, 61-63, 68, 95, 109, 116, 129, 130, 133:
X = any naturally occurring amino acid residue

<400> 27

Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Xaa Thr Pro Thr Ile Xaa
1 5 10 15

Lys Gly Xaa Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly
20 25 30

Xaa Ala Leu Glu Glu Lys Glu Asn Lys Ile Xaa Val Xaa Xaa Thr Gly
35 40 45

Tyr Phe Phe Ile Tyr Xaa Gln Val Leu Tyr Thr Asp Xaa Xaa Xaa Ala
50 55 60

Met Gly His Xaa Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu
65 70 75 80

Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Xaa Thr
85 90 95

Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Xaa Leu Glu Glu
100 105 110

Gly Asp Glu Xaa Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser
115 120 125

Xaa Xaa Gly Asp Xaa Thr Phe Phe Gly Ala Leu Lys Leu Leu

130 135 140

<210> 28

<211> 20

<212> DNA

<213> Mus musculus

<400> 28
aattaaccct cactaaaggg 20

<210> 29

<211> 33

<212> DNA

<213> Mus musculus

<400> 29
tctccctcga gatcacgcac tccagcaagt gag 33

<210> 30

<211> 24

<212> DNA

<213> Mus musculus

<400> 30
aacaggctat ttcttcatct acag 24

<210> 31

<211> 25

<212> DNA

<213> Mus musculus

<400> 31
ctcatcaatg tatcttatca tgtct 25

<210> 32

<211> 25

<212> DNA

<213> Mus musculus

<400> 32
ctcatcaatg tatcttatca tgtct 25

<210> 33

<211> 20

<212> DNA

<213> Mus musculus

<400> 33
agccgcggcc acaggaacag 20

<210> 34

<211> 19

<212> DNA

<213> Mus musculus

<400> 34
tggatgacat gacccatag 19

<210> 35

<211> 7

<212> PRT

<213> Homo sapiens

<400> 35

Met Asn Ser Arg Asn Lys Arg
1 5

<210> 36

<211> 60

<212> DNA

<213> Homo sapiens

<400> 36
atttgattct agaaggagga ataacatatg aacagccgta ataagcgtgc cgttcagggt 60

<210> 37

<211> 45

<212> DNA

<213> Homo sapiens

<400> 37
ccgcggatcc tcgagttaca gcagtttcaa tgcaccaaaa aatgt 45

<210> 38

<211> 17

<212> PRT

<213> Homo sapiens

<400> 38

Met Asp Tyr Lys Asp Asp Asp Asp Lys Lys Leu Asn Ser Arg Asn Lys
1 5 10 15

Arg

<210> 39

<211> 48

<212> DNA

<213> Homo sapiens

<400> 39
gacgatgaca agaagcttaa cagccgtaat aagcgtgccg ttcagggt 48

<210> 40

<211> 151

<212> PRT

<213> Mus musculus

<400> 40

Gln Asn Ser Ser Asp Lys Pro Val Ala His Val Val Ala Asn His Gln
1 5 10 15

Val Glu Glu Gln Leu Glu Trp Leu Ser Gln Arg Ala Asn Ala Leu Leu
20 25 30

```
Ala Asn Gly Met Asp Leu Lys Asp Asn Gln Leu Val Val Pro Ala Asp
        35                  40                  45

Gly Leu Tyr Leu Val Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly Cys
    50                  55                  60

Pro Asp Tyr Val Leu Leu Thr His Thr Val Ser Arg Phe Ala Ile Ser
65                  70                  75                  80

Tyr Gln Glu Lys Val Asn Leu Leu Ser Ala Val Lys Ser Pro Cys Pro
                85                  90                  95

Lys Asp Thr Pro Glu Gly Ala Glu Leu Lys Pro Trp Tyr Glu Pro Ile
            100                 105                 110

Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Gln Leu Ser Ala
        115                 120                 125

Glu Val Asn Leu Pro Lys Tyr Leu Asp Phe Ala Glu Ser Gly Gln Val
    130                 135                 140

Tyr Phe Gly Val Ile Ala Leu
145                 150
```

<210> 41

<211> 1340

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (28)..(906)

<400> 41

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gtcgacccac gcgtccgatc ctgagta atg agt ggc ctg ggc cgg agc agg cga      54
                               Met Ser Gly Leu Gly Arg Ser Arg Arg
                               1               5

ggt ggc cgg agc cgt gtg gac cag gag gag cgc ttt cca cag ggc ctg      102
Gly Gly Arg Ser Arg Val Asp Gln Glu Glu Arg Phe Pro Gln Gly Leu
10                  15                  20                  25

tgg aca ggg gtg gct atg aga tcc tgc ccc gaa gag cag tac tgg gat      150
Trp Thr Gly Val Ala Met Arg Ser Cys Pro Glu Glu Gln Tyr Trp Asp
                30                  35                  40

cct ctg ctg ggt acc tgc atg tcc tgc aaa acc att tgc aac cat cag      198
Pro Leu Leu Gly Thr Cys Met Ser Cys Lys Thr Ile Cys Asn His Gln
            45                  50                  55

agc cag cgc acc tgt gca gcc ttc tgc agg tca ctc agc tgc cgc aag      246
Ser Gln Arg Thr Cys Ala Ala Phe Cys Arg Ser Leu Ser Cys Arg Lys
        60                  65                  70
```

```
gag caa ggc aag ttc tat gac cat ctc ctg agg gac tgc atc agc tgt      294
Glu Gln Gly Lys Phe Tyr Asp His Leu Leu Arg Asp Cys Ile Ser Cys
    75                  80                  85

gcc tcc atc tgt gga cag cac cct aag caa tgt gca tac ttc tgt gag      342
Ala Ser Ile Cys Gly Gln His Pro Lys Gln Cys Ala Tyr Phe Cys Glu
90                  95                 100                 105

aac aag ctc agg agc cca gtg aac ctt cca cca gag ctc agg aga cag      390
Asn Lys Leu Arg Ser Pro Val Asn Leu Pro Pro Glu Leu Arg Arg Gln
                110                 115                 120

cgg agt gga gaa gtt gaa aac aat tca gac aac tcg gga agg tac caa      438
Arg Ser Gly Glu Val Glu Asn Asn Ser Asp Asn Ser Gly Arg Tyr Gln
            125                 130                 135

gga ctg gag cac aga ggc tca gaa gca agt cca gct ctc ccg ggg ctg      486
Gly Leu Glu His Arg Gly Ser Glu Ala Ser Pro Ala Leu Pro Gly Leu
        140                 145                 150

aag ctg agt gca gat cag gtg gcc ctg gtc tac agc acg ctg ggg ctc      534
Lys Leu Ser Ala Asp Gln Val Ala Leu Val Tyr Ser Thr Leu Gly Leu
    155                 160                 165

tgc ctg tgt gcc gtc ctc tgc tgc ttc ctg gtg gcg gtg gcc tgc ttc      582
Cys Leu Cys Ala Val Leu Cys Cys Phe Leu Val Ala Val Ala Cys Phe
170                 175                 180                 185

ctc aag atg agg ggg gat ccc tgc tcc tgc cag ccc cgc tca agg ccc      630
Leu Lys Met Arg Gly Asp Pro Cys Ser Cys Gln Pro Arg Ser Arg Pro
                190                 195                 200

cgt caa agt ccg gcc aag tct tcc cag gat cac gcg atg gaa gcc ggc      678
Arg Gln Ser Pro Ala Lys Ser Ser Gln Asp His Ala Met Glu Ala Gly
            205                 210                 215

agc cct gtg agc aca tcc ccc gag cca gtg gag acc tgc agc ttc tgc      726
Ser Pro Val Ser Thr Ser Pro Glu Pro Val Glu Thr Cys Ser Phe Cys
        220                 225                 230

ttc cct gag tgc agg gcg ccc acg cag gag agc gca gtc acg cct ggg      774
Phe Pro Glu Cys Arg Ala Pro Thr Gln Glu Ser Ala Val Thr Pro Gly
    235                 240                 245

acc ccc gac ccc act tgt gct gga agg tgg ggg tgc cac acc agg acc      822
Thr Pro Asp Pro Thr Cys Ala Gly Arg Trp Gly Cys His Thr Arg Thr
250                 255                 260                 265

aca gtc ctg cag cct tgc cca cac atc cca gac agc ggc ctt ggc att      870
Thr Val Leu Gln Pro Cys Pro His Ile Pro Asp Ser Gly Leu Gly Ile
                270                 275                 280

gtg tgt gtg cct gcc cag gag ggg ggc cca ggt gca taaatggggg           916
Val Cys Val Pro Ala Gln Glu Gly Gly Pro Gly Ala
            285                 290

tcagggaggg aaaggaggag ggagagagat ggagaggagg ggagagagaa agagaggtgg    976

ggagagggga gagagatatg aggagagaga gacagaggag gcagagaggg agagaaacag   1036

aggagacaga gagggagaga gagacagagg gagagagaga cagagaggaa gagaggcaga   1096

gagggaaaga ggcagagaag gaaagagaca ggcagagaag gagagaggca gagagggaga   1156
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gaggcagaga gggagagagg cagagagaca gagagggaga gagggacaga gagagataga 1216

gcaggaggtc ggggcactct gagtcccagt tcccagtgca gctgtaggtc gtcatcacct 1276

aaccacacgt gcaataaagt cctcgtgcct gctgctcaca gcccccgaga gcccctcctc 1336

ctgg 1340

<210> 42

<211> 293

<212> PRT

<213> Homo sapiens

<400> 42

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
1 5 10 15

Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
20 25 30

Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
35 40 45

Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
50 55 60

Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp
65 70 75 80

His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His
85 90 95

Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val
100 105 110

Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser Gly Glu Val Glu Asn
115 120 125

Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu Glu His Arg Gly Ser
130 135 140

Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu Ser Ala Asp Gln Val
145 150 155 160

Ala Leu Val Tyr Ser Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys
165 170 175

Cys Phe Leu Val Ala Val Ala Cys Phe Leu Lys Met Arg Gly Asp Pro
180 185 190

Cys Ser Cys Gln Pro Arg Ser Arg Pro Arg Gln Ser Pro Ala Lys Ser
195 200 205

Ser Gln Asp His Ala Met Glu Ala Gly Ser Pro Val Ser Thr Ser Pro
210 215 220

Glu Pro Val Glu Thr Cys Ser Phe Cys Phe Pro Glu Cys Arg Ala Pro
225 230 235 240

Thr Gln Glu Ser Ala Val Thr Pro Gly Thr Pro Asp Pro Thr Cys Ala
245 250 255

Gly Arg Trp Gly Cys His Thr Arg Thr Thr Val Leu Gln Pro Cys Pro
260 265 270

His Ile Pro Asp Ser Gly Leu Gly Ile Val Cys Val Pro Ala Gln Glu
275 280 285

Gly Gly Pro Gly Ala
290

<210> 43

<211> 291

<212> PRT

<213> Homo sapiens

<400> 43

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
1 5 10 15

Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
20 25 30

Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
35 40 45

Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
50 55 60

Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp
65 70 75 80

His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His
85 90 95

Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val

```
            100                 105                 110

Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser Gly Glu Val Glu Asn
        115                 120                 125

Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu Glu His Arg Gly Ser
    130                 135                 140

Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu Ser Ala Asp Gln Val
145                 150                 155                 160

Ala Val Tyr Ser Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys Cys
                165                 170                 175

Phe Leu Val Ala Val Ala Cys Phe Leu Lys Met Arg Gly Asp Pro Cys
            180                 185                 190

Ser Cys Gln Pro Arg Ser Arg Pro Arg Gln Ser Pro Ala Lys Ser Ser
        195                 200                 205

Gln Asp His Ala Met Glu Ala Gly Ser Pro Val Ser Thr Ser Pro Glu
    210                 215                 220

Pro Val Glu Thr Cys Ser Phe Cys Phe Pro Glu Cys Arg Ala Pro Thr
225                 230                 235                 240

Gln Glu Ser Ala Val Thr Pro Gly Thr Pro Asp Thr Cys Ala Gly Arg
                245                 250                 255

Trp Gly Cys His Thr Arg Thr Thr Val Leu Gln Pro Cys Pro His Ile
            260                 265                 270

Pro Asp Ser Gly Leu Gly Ile Val Cys Gly Pro Ala Gln Glu Gly Gly
        275                 280                 285

Pro Gly Ala
    290

<210>  44

<211>  32

<212>  PRT

<213>  Homo sapiens


<400>  44

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
1               5                   10                  15

Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
            20                  25                  30

<210>  45

<211>  37

<212>  PRT

<213>  Homo sapiens
```

<400> 45

Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
1 5 10 15

Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
20 25 30

Phe Cys Arg Ser Leu
35

<210> 46

<211> 38

<212> PRT

<213> Homo sapiens

<400> 46

Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp His Leu Leu Arg Asp
1 5 10 15

Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His Pro Lys Gln Cys Ala
20 25 30

Tyr Phe Cys Glu Asn Lys
35

<210> 47

<211> 57

<212> PRT

<213> Homo sapiens

<400> 47

Leu Arg Ser Pro Val Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser
1 5 10 15

Gly Glu Val Glu Asn Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu
20 25 30

Glu His Arg Gly Ser Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu
35 40 45

Ser Ala Asp Gln Val Ala Val Tyr Ser
50 55

<210> 48

<211> 21

<212> PRT

<213> Homo sapiens

<400> 48

Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys Cys Phe Leu Val Ala
1 5 10 15

Val Ala Cys Phe Leu
20

<210> 49

<211> 106

<212> PRT

<213> Homo sapiens

<400> 49

Lys Met Arg Gly Asp Pro Cys Ser Cys Gln Pro Arg Ser Arg Pro Arg
1 5 10 15

Gln Ser Pro Ala Lys Ser Ser Gln Asp His Ala Met Glu Ala Gly Ser
20 25 30

Pro Val Ser Thr Ser Pro Glu Pro Val Glu Thr Cys Ser Phe Cys Phe
35 40 45

Pro Glu Cys Arg Ala Pro Thr Gln Glu Ser Ala Val Thr Pro Gly Thr
50 55 60

Pro Asp Thr Cys Ala Gly Arg Trp Gly Cys His Thr Arg Thr Thr Val
65 70 75 80

Leu Gln Pro Cys Pro His Ile Pro Asp Ser Gly Leu Gly Ile Val Cys
85 90 95

Gly Pro Ala Gln Glu Gly Gly Pro Gly Ala
100 105

<210> 50

<211> 32

<212> DNA

<213> Homo sapiens

<400> 50
tctccaagct tccgatcctg agtaatgagt gg 32

<210> 51

<211> 34

<212> DNA

<213> Homo sapiens

<400> 51
tctccgcggc cgcgctgtag accagggcca cctg 34

<210> 52

<211> 6

<212> PRT

<213> Homo sapiens

<400> 52

Gly Ala Leu Lys Leu Leu
1 5